

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/580,987
Source: 1FWP
Date Processed by STIC: 6/19/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/580,987

TIME: 11:16:50

Input Set : A:\54A-001020PC.ST25.txt

Output Set: N:\CRF4\06192006\J580987.raw

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3 <110> APPLICANT: The Scripps Research Institute
4     Zhang, Zhiwen
5     Alfonta, Lital
6     Schultz, Peter
8 <120> TITLE OF INVENTION: SELECTIVE INCORPORATION OF 5-HYROXYTRYPTOPHAN
INTO PROTEINS IN
9     MAMMALIAN CELLS
11 <130> FILE REFERENCE: 54A-001020PC
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/580,987
C--> 13 <141> CURRENT FILING DATE: 2006-05-25
13 <160> NUMBER OF SEQ ID NOS: 7
15 <170> SOFTWARE: PatentIn version 3.2
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 993
19 <212> TYPE: DNA
20 <213> ORGANISM: Artificial
22 <220> FEATURE:
23 <223> OTHER INFORMATION: encodes Val144Pro mutant of Bacillus subtilis
tryptophanyl-tRNA
24     synthetase
26 <400> SEQUENCE: 1
27 atgaaacaaa cgattttttc aggcattcag ccaagcggct cagtgcgct cggcaactat      60
29 atcgggtgcaa tgaagcagtt tgcgaactg cagcatgatt ataacagcta tttttgcatc      120
31 gtcgatcagc atgcgataac tgttccctca gaccggcttg agcttagaaa gaatatccgc      180
33 aatctcgagg cgctttactt agctgtcgga cttgatccag aaaaagcaac attgtttatt      240
35 cagtcagagg tccccgcaca tgcgcaggcc ggatggatga tgcagtgtgt cgcctatata      300
37 ggcgagcttg agcggatgac tcaatttaag gacaaatcca aaggcaatga agctgtcgtc      360
39 tccggcctgt taacatatcc gccgctgatg gccgctgata ttctgctgta cggaacggat      420
41 cttgtacctc ccggcgagga tcaaaagcag caccttgagc tgacgcggaa tcttgcagaa      480
43 cgcttcaaca aaaaatacaa cgacatcttt acgattccgg aagtgaaaat tccaaaagtc      540
45 ggtgcacgta tcatgtctct gaatgatccg ctgaagaaaa tgagcaaata tgatccgaat      600
47 cagaaagctt atattacatt gctggatgag ccgaagcagc ttgaaaagaa aatcaaaagc      660
49 gcagtaacgg attctgaagg cattgtcaaa tttgataagg aaaacaaacc gggcgtttcc      720
51 aaccttctta caatttatc aatcctcggc aatacgacaa ttgaagagct tgaagcaaag      780
53 tacgaaggaa aaggctacgg cgagtttaaa ggtgatttgg cagaagtcgt agtgaacgca      840
55 ttaaaaccga tccaggaccg ctattacgag ctgatagaat ctgaagaatt agaccggatt      900
57 cttgatgaag gcgcggaacg agcgaatcgg acagcaaaca aaatgctgaa aaaaatggag      960
59 aatgccatgg gtcttggaag aaaaagacgc taa                                993
62 <210> SEQ ID NO: 2
63 <211> LENGTH: 330
64 <212> TYPE: PRT
65 <213> ORGANISM: Artificial
67 <220> FEATURE:
68 <223> OTHER INFORMATION: Val144Pro mutant of Bacillus subtilis

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tryptophanyl-tRNA
69 synthetase

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71 <400> SEQUENCE: 2

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73 Met Lys Gln Thr Ile Phe Ser Gly Ile Gln Pro Ser Gly Ser Val Thr
74 1          5          10          15
77 Leu Gly Asn Tyr Ile Gly Ala Met Lys Gln Phe Val Glu Leu Gln His
78          20          25          30
81 Asp Tyr Asn Ser Tyr Phe Cys Ile Val Asp Gln His Ala Ile Thr Val
82          35          40          45
85 Pro Gln Asp Arg Leu Glu Leu Arg Lys Asn Ile Arg Asn Leu Ala Ala
86          50          55          60
89 Leu Tyr Leu Ala Val Gly Leu Asp Pro Glu Lys Ala Thr Leu Phe Ile
90 65          70          75          80
93 Gln Ser Glu Val Pro Ala His Ala Gln Ala Gly Trp Met Met Gln Cys
94          85          90          95
97 Val Ala Tyr Ile Gly Glu Leu Glu Arg Met Thr Gln Phe Lys Asp Lys
98          100          105          110
101 Ser Lys Gly Asn Glu Ala Val Val Ser Gly Leu Leu Thr Tyr Pro Pro
102          115          120          125
105 Leu Met Ala Ala Asp Ile Leu Leu Tyr Gly Thr Asp Leu Val Pro Pro
106          130          135          140
109 Gly Glu Asp Gln Lys Gln His Leu Glu Leu Thr Arg Asn Leu Ala Glu
110 145          150          155          160
113 Arg Phe Asn Lys Lys Tyr Asn Asp Ile Phe Thr Ile Pro Glu Val Lys
114          165          170          175
117 Ile Pro Lys Val Gly Ala Arg Ile Met Ser Leu Asn Asp Pro Leu Lys
118          180          185          190
121 Lys Met Ser Lys Ser Asp Pro Asn Gln Lys Ala Tyr Ile Thr Leu Leu
122          195          200          205
125 Asp Glu Pro Lys Gln Leu Glu Lys Lys Ile Lys Ser Ala Val Thr Asp
126          210          215          220
129 Ser Glu Gly Ile Val Lys Phe Asp Lys Glu Asn Lys Pro Gly Val Ser
130 225          230          235          240
133 Asn Leu Leu Thr Ile Tyr Ser Ile Leu Gly Asn Thr Thr Ile Glu Glu
134          245          250          255
137 Leu Glu Ala Lys Tyr Glu Gly Lys Gly Tyr Gly Glu Phe Lys Gly Asp
138          260          265          270
141 Leu Ala Glu Val Val Val Asn Ala Leu Lys Pro Ile Gln Asp Arg Tyr
142          275          280          285
145 Tyr Glu Leu Ile Glu Ser Glu Glu Leu Asp Arg Ile Leu Asp Glu Gly
146          290          295          300
149 Ala Glu Arg Ala Asn Arg Thr Ala Asn Lys Met Leu Lys Lys Met Glu
150 305          310          315          320
153 Asn Ala Met Gly Leu Gly Arg Lys Arg Arg
154          325          330

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157 <210> SEQ ID NO: 3

158 <211> LENGTH: 71

159 <212> TYPE: RNA

160 <213> ORGANISM: Artificial

162 <220> FEATURE:

163 <223> OTHER INFORMATION: mutant opal supressor tRNA

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165 <400> SEQUENCE: 3
166 aggggcgugg cuuaacggua gagcagaggu cuucaaaacc uccggugugg guucgauucc 60
168 uaccgccccu g 71
171 <210> SEQ ID NO: 4
172 <211> LENGTH: 74
173 <212> TYPE: RNA
174 <213> ORGANISM: Bacillus subtilis
176 <400> SEQUENCE: 4
177 aggggcauag uuuaacggua gaacagaggu cuccaaaacc uccggugugg guucgauucc 60
179 uacugccccu gccca 74
182 <210> SEQ ID NO: 5
183 <211> LENGTH: 48
184 <212> TYPE: DNA
185 <213> ORGANISM: Arabidopsis sp.
187 <400> SEQUENCE: 5
188 aaaattaatt aaacgttttag aaatatatag atgaacttta tagtacia 48
191 <210> SEQ ID NO: 6
192 <211> LENGTH: 12
193 <212> TYPE: DNA
194 <213> ORGANISM: Arabidopsis sp.
196 <400> SEQUENCE: 6
197 gtcctttttt tg 12
200 <210> SEQ ID NO: 7
201 <211> LENGTH: 23
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial
205 <220> FEATURE:
206 <223> OTHER INFORMATION: oligonucleotide probe
208 <400> SEQUENCE: 7
209 cggaggtttt gaagacctct gct 23

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RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 06/19/2006

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Input Set : A:\54A-001020PC.ST25.txt

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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,7

VERIFICATION SUMMARY

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Input Set : A:\54A-001020PC.ST25.txt

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L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date